

Notice of Allowability

Application No.

10/055,774

Examiner

Norca L. Torres-Velazquez

Applicant(s)

MILLER ET AL.

Art Unit

1771

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on October 20, 2003.
 2. ☒ The allowed claim(s) is/are 1,2,5,6,12,13,14 and 44-58.
 3. ☒ The drawings filed on 22 January 2002 are accepted by the Examiner.
 4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
 6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

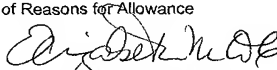
7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |


ELIZABETH M. COLE
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in the communication filed on October 20, 2003 "Amendment After Final" by James J. Dottavio in which the Examiner was authorized to cancel claims that had been withdrawn. Further the claims have been amended to correct formalities in the status of the claims. It is noted that the seven status identifiers accepted by USPTO are: (original), (currently amended), (canceled), (withdrawn), (new), (previously presented) and (not entered).

The application has been amended as follows:

1. (Previously presented) An asphalt-based roofing material comprising:
a substrate coated with an asphalt coating, the asphalt coating including an upper surface that is positioned above the substrate when the roofing material is installed on a roof, and a lower region that is positioned below the substrate when the roofing material is installed on the roof,
a protective coating adhered to the upper surface of the asphalt coating,
a surface layer of granules adhered to the protective coating, and
a web bonded to the lower region of the asphalt coating, the web comprising materials having an ultimate tensile elongation of greater than about six percent.
2. (Original) The roofing material of claim 1 which, when tested under

impact resistance test UL 2218, exhibits an impact resistance improvement of at least two UL 2218 classes compared with the same roofing material without the web.

3.(Canceled)

4. (Canceled)

5. (Original) The roofing material of claim 1 including a portion that is normally exposed when the roofing material is installed on a roof, in which the protective coating covers at least about 80% of the upper surface of the asphalt coating in the exposed portion of the roofing material.

6. (Previously Presented) An asphalt-based roofing material including a portion that is normally exposed when the roofing material is installed on a roof, the roofing material comprising:

a substrate coated with an asphalt coating, the asphalt coating including an upper surface that is positioned above the substrate when the roofing material is installed on the roof.

a protective coating adhered to the upper surface of the asphalt coating, the protective coating comprising a unitary layer covering at least about 80% of the upper surface of the asphalt coating in the exposed portion of the roofing material, and a surface layer of granules adhered to the protective coating.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Original) The roofing material of claim 6 in which a substantially continuous layer of the protective coating is maintained between the asphalt coating and at least about 30% of the granules that penetrate the asphalt coating.

13. (Original) The roofing material of claim 6 which, after aging by 60 days exposure to alternating cycles of concentrated solar radiation and water spray, then cooled to 140F (-10OC) and subjected to a UL 22 18 Class 4 impact, exhibits improved adhesion of the granules as measured by at least about 30% less granule loss in the area of impact compared with the same roofing material without the protective coating.

14. (Previously presented) An asphalt-based roofing material comprising:
a substrate coated with an asphalt coating, the asphalt coating including an upper surface that is positioned above the substrate when the roofing material is installed on a roof,

a protective unitary coating adhered to the upper surface of the asphalt coating,
and

a surface layer of granules adhered to the protective coating, wherein at least a portion of the granules penetrate the asphalt coating, and wherein the protective coating provides a seal to prevent outside moisture from flowing around the granules to the asphalt coating.

15. (Canceled)

16. (Canceled)

17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)
22. (Canceled)
23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (Canceled)
28. (Canceled)
29. (Canceled)
30. (Canceled)
31. (Canceled)
32. (Canceled)
33. (Canceled)
34. (Canceled)
35. (Canceled)
36. (Canceled)
37. (Canceled)
38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Previously presented) The roofing material of claim 1, wherein the web is fused to the lower region of the asphalt coating.

46. (Previously presented) The roofing material of claim 45, the web improving the impact resistance of the roofing material such that, when tested under impact resistance test UL 2218, the roofing material exhibits an impact resistance improvement of at least two UL 2218 classes compared with the same roofing material without the web.

47. (Currently Amended) The roofing material of claim 5, wherein the protective layer is applied to the upper surface as a unitary layer.

48. (Previously presented) The roofing material of claim 6, wherein the protective coating is extruded onto the upper surface of the asphalt coating.

49. (Previously presented) The roofing material of claim 6, wherein the protective coating comprises one or more solidified film strips applied onto the upper surface of the asphalt coating, the strips being melted to form the unitary layer.

50. (Previously presented) The roofing material of claim 6, wherein said protective coating comprises a particulate material applied onto the upper surface of

the asphalt coating, the particulate material being melted to form the unitary layer.

51. (New) The roofing material of claim 2 which meets a UL 2218 Class 4 impact resistance standard.

52. (New) The roofing material of claim 1 which, after aging by 60 days exposure to alternating cycles of concentrated solar radiation and water spray, then cooled to 14°F (-10°C) and subjected to a UL 2218 Class 4 impact, exhibits improved adhesion of the granules measured by at least about 30% less granule loss in the area of impact compared with the same roofing material without the protective coating.

53. (new) The roofing material of claim 6 in which the protective coating has an average thickness of at least about 1 mil (0.025 mm).

54. (new) The roofing material of claim 6 in which the protective coating comprises an adhesive.

55. (new) The roofing material of claim 6 in which the coating material is selected so that the granules adhere to the coating material predominantly by polar bonding.

56. (new) The roofing material of claim 6 in which the coating material is selected from the group consisting of ethylene-vinyl acetate copolymers, ethylene-vinyl acetate copolymers modified with styrene-butadiene-styrene block copolymers, ethylene-ethyl acetate copolymers, ethylene-n-butylacrylate polymers, ethylene-methacrylate polymers, styrene-isoprene-styrene block or graft copolymers, styrene-butadiene-styrene block or graft copolymers, other styrene-containing block or graft copolymers, polyamide terpolymers, hydrocarbon rubbers, polyethylenes, polyesters,

polyurethanes, siloxanes, and mixtures of these materials.

57. (new) The roofing material of claim 14 in which a substantially continuous layer of the protective coating is maintained between the asphalt coating and at least about 30% of the granules that penetrate the asphalt coating.

58. (new) The roofing material of claim 14 in which the protective coating completely envelops a number of the granules within the range of from about 0.5% to about 6% of the total granules.

2. The following is an examiner's statement of reasons for allowance:

Claims 1-2, 5-6, 12-14 and 44-58 are allowed because the prior art fails to teach an asphalt-based roofing material of the present invention that comprises a web bonded to the lower region of the asphalt coating and exhibits an impact resistance improvement of at least two UL 2218 classes compared with the same roofing material without the web. The prior art fails to teach a web fused to the lower region of the asphalt coating. Further, the prior art fails to teach that the protective coating of the present invention is applied to the upper surface of the asphalt coating by extrusion, melting film strips or by melting particulate material.

Further, the prior art fails to teach an asphalt-based roofing material of the present invention that comprises a protective unitary coating with a surface layer of granules adhered to the protective coating and at least a portion of the granules penetrate the asphalt coating. It is noted that the term unitary has been defined by Applicants as being substantially uninterrupted, or continuous.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Application/Control Number: 10/055,774

Page 9

Art Unit: 1771

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 703-306-5714. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

NLT

November 6, 2003

November 10, 2003 - revised

Elizabeth M. Cole
ELIZABETH M. COLE
PRIMARY EXAMINER